

An Ar 46
S196177

Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D6102-013
Job Sheet 195920



Part No: D6102-013

Job Qty: 12 pcs

Part Name: Saddle Billet



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 6/3/19

Job Tracking No:

Due Date: 6/25/19

Created By: Chantal Lavoie

Type: Stock

Description:

Note: DWG REV D

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier Lead Time	
100	Purchasing	12 pcs	6/25/19	6/25/19	0.00	0.00	Purchasing - 1 DAS	JUL 05 2019
							Purchasing - 2 81	
							Purchasing - 3 9-89	
110	Packaging 2-1 - Receive - B4B	12 pcs	6/25/19	6/25/19	0.00	0.00	Packaging 2 - 1 - B4B	JUL 05 2019
							Packaging 2 - 2 - B4B	
							Packaging 2 - 3 - B4B	
							Packaging 2 - 5 - B4B	
							Packaging 2 - 4 - B4B	
							Packaging 2 - 6 - B4B	
							Packaging 2 - 7 - B4B	
							Packaging 2 - 8 - B4B	
							Packaging 2 - 9 - B4B	
							Packaging 2 - 10 - B4B	
							Packaging 2 - 11 - B4B	
							Packaging 2 - 12 - B4B	
							Packaging 2 - 13 - B4B	
							Packaging 2 - 14 - B4B	
							Packaging 2 - 15 - B4B	
							Packaging 2 - 16 - B4B	
							Packaging 2 - 17 - B4B	
							Packaging 2 - 18 - B4B	
							Packaging 2 - 19 - B4B	
							Packaging 2 - 20 - B4B	
							Packaging 2 - 21 - B4B	
							Packaging 2 - 22 - B4B	
							Packaging 2 - 23 - B4B	
							Packaging 2 - 24 - B4B	
							Packaging 2 - 25 - B4B	
							Packaging 2 - 26 - B4B DAS	
							Packaging 2 - 27 - B4B 81	
							Packaging 2 - 28 - B4B 9-89	

Plex 6/3/19 7:45 AM dart.lavoie.chanta

					Packaging 2 - 29 - B4B	
					Packaging 2 - 30 - B4B	
					Packaging 2 - 31 - B4B	
					Packaging 2 - 32 - B4B	
					Packaging 2 - 33 - B4B	
					Packaging 2 - 34 - B4B	
					Packaging 2 - 35 - B4B	
					Packaging 2 - 36 - B4B	
120 QC 18	12 pcs	6/25/19	0.00 0.00		QC 18 - 12	
					QC 18 - 14	
					QC 18 - 22	
					QC 18 - 25	
					QC 18 - 48	DAS
					QC 18 - 58	81
					QC 18 - 61	9-89
					QC 18 - 9	
130 Packaging 3-1 - Stock - B4B	12 pcs	6/25/19	0.00 0.00		Packaging 3 - 1 - B4B	BM
					Packaging 3 - 2 - B4B	
					Packaging 3 - 3 - B4B	
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	
					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	
					Packaging 3 - 11 - B4B	
					Packaging 3 - 12 - B4B	
					Packaging 3 - 13 - B4B	
					Packaging 3 - 14 - B4B	
					Packaging 3 - 15 - B4B	
					Packaging 3 - 16 - B4B	
					Packaging 3 - 17 - B4B	
					Packaging 3 - 18 - B4B	
					Packaging 3 - 19 - B4B	
					Packaging 3 - 20 - B4B	
					Packaging 3 - 21 - B4B	
					Packaging 3 - 22 - B4B	
					Packaging 3 - 23 - B4B	
					Packaging 3 - 24 - B4B	
					Packaging 3 - 25 - B4B	
					Packaging 3 - 26 - B4B	
					Packaging 3 - 27 - B4B	
					Packaging 3 - 28 - B4B	
					Packaging 3 - 29 - B4B	
					Packaging 3 - 30 - B4B	
					Packaging 3 - 31 - B4B	
					Packaging 3 - 32 - B4B	
					Packaging 3 - 33 - B4B	
					Packaging 3 - 34 - B4B	DAS
					Packaging 3 - 35 - B4B	21
					Packaging 3 - 36 - B4B	9-89
140 QC 21 - SA	12 pcs	6/25/19	0.00 0.00		QC 21 - SA - 21	JUL 08 2019
					QC 21 - SA - 70	
					QC 21 - SA - 53	
Part Op 100 - (Purchasing) Issue P/O: _____ b) 7.000" x 6.500" x 2.000" thick Descriptions: 110 - (Receive & Inspect for Damage & Mat'l Certs) Ensure material certification is attached 120 - (QC18 In-Coming Inspection Material) Check certification to Dwg D6102 for compliance 130 - (Identify as per dwg & Stock Location: _____) LOCATION: MAT046 140 - (QC21- Final Inspection - Work Order Release)						

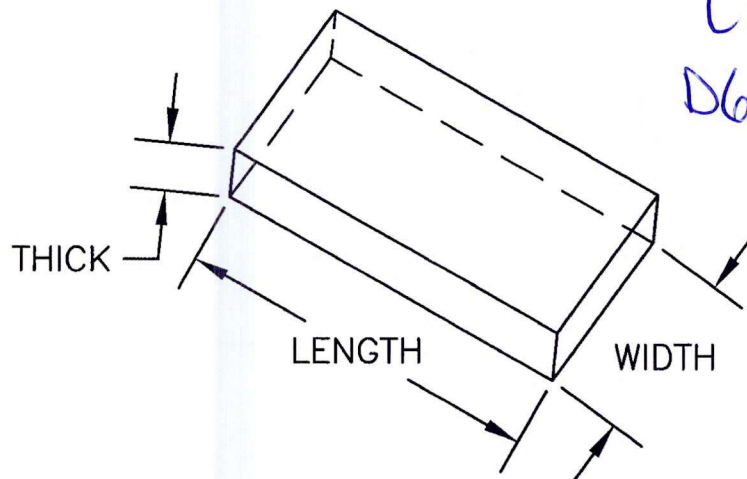
Job BOM				
Part / Item	Component Name	Quantity	Operation	Container
D6102-013P	6061-T6 7.0X6.5X2.0	12 pcs (1 ea)	100-Purchasing	SIABISS
Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D6102-013P	12	0	0
Part Specifications				
Specifications could not be found.				

Plex 6/3/19 7:45 AM dart.lavoie.chantal

DART

DESIGN #	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CP	APPROVED #	DRAWING NO. D6102	Rev. D SHEET 1 OF 1
DATE 06.06.30		TITLE SADDLE BILLET, 6061	SCALE NTS
A	01.03.30	NEW ISSUE	
B	03.10.20	ADD D6102-005/-007/-009	
C	04.08.25	ADD D6102-010/-011	
D	06.06.30	ADD D6102-013	

SPECIFICATION CONTROL DRAWING

**RELEASED**

06.08.15 #

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.06/-0.00), AND GRAIN DIRECTION AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.06/-0.00.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6102-001	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.880	6.250	2.000	Along 7.880 Length
D6102-003	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.000	6.250	2.000	Along 6.000 Length
D6102-005	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	47.85	15.250	1.000	Along 47.85 Length
D6102-007	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.500	7.000	2.500	Along 7.500 Length
D6102-009	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	11.000	6.000	5.000	Along 11.000 Length
D6102-010	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.950	8.250	2.500	Along 7.950 Length
D6102-011	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	8.250	2.500	Along 6.500 Length
D6102-013	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	7.000	2.000	Along 6.500 Length

Copyright © 2001 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043615



Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

PO No: POHB043615
PO Date: 6/3/19
Due Date: 6/24/19
Purchase Order Revision:
Revision Date:
Ship-To Contact: Guerin, Kimberley
Phone: kguerin@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pynt Terms: Net 60

Freight Terms:
Special Comments:

E-MAILED
2019-06-04

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1		D6101-001P	72746	7075-T7351 2X6X6.25 AS PER DWG D6101 REV. B SIZE: 6.00" X 6.250" X 2.00" THICK GRAIN DIRECTION ALONG 6.00" LENGHT MATERIAL: 7075-T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	-	6/24/19	20 pcs	20 pcs Vm	20 pcs	\$29.57/pcs	\$591.40
2		D6101-003P	72742	7075-T7351 2X6.25X7.875 : Various STC's AS PER DWG D6101 REV. B SIZE: 7.875" X 6.250" X 2.00" THICK GRAIN DIRECTION ALONG 7.875" LENGHT MATERIAL: 7075-T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	-	6/24/19	20 pcs	20 pcs Vm	20 pcs	\$38.82/pcs	\$776.40

JUL 03 2019

JUL 03 2019



Dart Aerospace Ltd.
1270 Aberdeen St.
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043615



Items												
Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
3		D6101-005P	72744	7075-T7351 8.25X5.0X2.5 : Various STC's AS PER DWG.D6101 REV.B SIZE: 5.00" X 8.250" X 2.50" THICK GRAIN DIRECTION ALONG 5.00" LENGTH MATERIAL: 7075- T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	-	6/24/19	40 pcs	40 pcs vm	40 pcs	\$40.54/pcs	\$1,621.60
4		D6101-007P	72743	7075-T7351 8.25X7.75X2.5 : Various STC's AS PER DWG D6101 REV. B MATERIAL: 7075- T7351 (QQ-A- 250/12) SIZE: 7.750" X 8.250" X 2.50" THICK GRAIN DIRECTION ALONG: 7.750" LENGTH TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	-	6/24/19	40 pcs	40 pcs vm	40 pcs	\$61.72/pcs	\$2,468.80
5		D6101-013P	72745	Saddle Billet : Various STC's AS PER DWG D6101 REV. B MATERIAL: 7075- T7351 (QQ-A- 250/12) SIZE: 10.100" X 8.250" X 2.50" THICK GRAIN DIRECTION ALONG: 10.100" LENGTH TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	-	6/24/19	16 pcs	16 pcs vm	16 pcs	\$80.47/pcs	\$1,287.52
6	195920	D6102-013P		6061-T6 7.0X6.5X2.0 : Various STC's	Firmed	-	6/24/19	12 pcs	12 pcs vm	12 pcs	\$31.65/pcs	\$379.80



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043615



Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
7	195921	D6103-003P		Round Alum Billet : Various STC's AS PER DWG D6103 REV. B MATERIAL: 7075-T7351 AS PER QQ-A-225/9 SIZE: 3.500" X 12.500" LONG	Firmed	-	6/24/19	20 pcs	20 pcs 22 pcs vm	20 pcs	\$60.40/pcs	\$1,208.00
8	195922	D6104-003P		17-4 SS Roundbar 3.25"Od : Various STC's	Firmed	-	6/24/19	10 pcs	10 pcs 13 pcs vm	10 pcs	\$26.70/pcs	\$267.00
Grand Total:												\$8,600.52

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

- A005 RIGHT OF ENTRY
- A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT
- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
- A049 SUPPLIER AWARENESS

Handwritten signature and date:
JUN 04 2019

Plex 6/3/19 11:09 AM Dart.Guerin.Kimberley

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3940599

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 03-JUL-19	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier LOCAL FLEET		BOL No 3940599-5	

Shipment Details	Final Destination Branch - TOR
-------------------------	---------------------------------------

Order No	Line No	Item No	Description				
5510027	4	30509.MO	2.0000.PL.6061.T651.ALUMINUM.60.5000.144.5000 CUT RECTANGLE TO 7 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 6.5")) X 6.5 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 6.5")) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS 4027				
Purchase Order No		Part Number	Ordered Qty		Invoice Qty		
POHB043615		YOUR ITEM NUMBER: D6102-013	12.00 PCS		12.00 PCS		
Details		ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
122735157	KAISER ALUMINUM	 296417B91 Vm		4			36.5281
122735157	KAISER ALUMINUM	 296417B91 Vm		8			73.0561

SHIP TO:

A M CASTLE & CO
14001 ORANGE AVE
P.O. BOX 1402
PARAMOUNT, CA 90723

SOLD TO:

AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

KAISER ALUMINUM

Trentwood Works

PO Box 15108, Spokane Valley WA 99215-5108

15000 E Euclid, Spokane Valley WA 99216

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number

4540434

CUSTOMER PO NUMBER: 489080-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 30509	SHIP RUN/LOAD: 104475/4	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1277456-1	SHIP DATE: 8-DEC-2018	ALLOY: 6061	CLAD: BARE	TEMPER: T651
WEIGHT SHIPPED: 5258 LB (2385.01 KG)	QUANTITY: 3 PCS EST.	TRUCK B/L #: 2077766	GAUGE: 2.0000 IN (50.8000 MM)	DIAMETER/WIDTH: 60.500 IN (1536.7 MM)
				LENGTH: 144.500 IN (3670.3 MM)

MHU 2285277: LOT 296417B9: 2 pieces;

MHU 2285279: LOT 296417B9: 1 pieces;

Certified Specifications

AMS 4027/RevN
EN 10204-3.1/Rev2004

ASME SB 209/Rev2010

ASTM B 209/Rev14

Test Code: 1511

Lot: 296417B9 Cast 537

Drop 09

Test Results

Ingot 1

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 5 (Min:Max)	47.4 : 48.2 (327 : 332)	43.4 : 44.1 (299 : 304)	13.7 : 14.4

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.71	0.5	0.30	0.11	1.0	0.20	0.14	0.02	0.01	0.00	TOT 0.03

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
6061												
MIN(wt%)	0.40	0.0	0.15	0.00	0.8	0.04	0.00	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS

AMC A96061-161 R 3





Trentwood Works
PO Box 15108, Spokane Valley WA 99215-5108
15000 E Euclid, Spokane Valley WA 99216
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4540434

TEST NOTES

6061 sheet or plate certified to AMS 4025, AMS 4026, or AMS
4027 also meets applicable requirements of AMS-QQ-A-250/11
Rev.A.

vm

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- was melted in the United States of America or a qualifying country per DFARS 225.672-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- has been thermally processed in compliance with AMS 2772, where applicable.
- is mercury free, within the limits of detection of ASTM E1215 (< 1ppm).
- is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
- is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
- is free of weld repair.
- meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

Michael Peske, PT Lab Process Engineer

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D6102-013
DATE: JUL 5 2019

PO / BATCH NO.: POH8043615/
5196155

MATERIAL CERT REC'D: Yes
QUANTITY RECEIVED: 12 pcs
QUANTITY INSPECTED: 12 PCS
QUANTITY REJECTED: -

THICKNESS ORDERED: 2"
THICKNESS RECEIVED: 2"
SHEET SIZE ORDERED: -
SHEET SIZE RECEIVED: -

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N	
CORRECT FINISH	☒ Y N	
CORROSION	Y ☒ N	
CORRECT GRAIN DIRECTION	☒ Y N	
CORRECT MATERIAL PER M-DRAWING	☒ Y N	<u>AMS-QQ-A-250</u>
CORRECT THICKNESS	☒ Y N	
PHOTO REQUIRED	Y ☒ N	
CORRECT REF # TO LINK CERT	☒ Y N	<u>HT:296417B9</u>
CORRECT MATERIAL IDENTIFICATION	☒ Y N	
CORRECT M# ON THE MATERIAL	☒ Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: _____	DAS 81 9-89	SIGNED OFF BY: _____
DATE: <u>JUL 05 2019</u>		DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in